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09/848,662	05/03/2001	Sandeep K. Singhal	6020.0200	7321

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EXAMINER	
PARK, ILWOO	
ART UNIT	**PAPER NUMBER**
2182	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/848,662	SINGHAL ET AL.	
	Examiner	Art Unit	
	Ilwoo Park	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-29,31-35 and 37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-29,31-35 and 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 9, 10, 27-29 and 31 are amended and claims 8 and 30 are canceled. Chien et al., Oz et al., and Maffeis were cited in the last office action. Claims 1-7, 9-29, 31-35 and 37 are presented for examination.

Response to Arguments

2. Applicant's arguments filed 3/1/2007 have been fully considered but they are not persuasive. In the Remarks, Applicant argues in substance that Chien et al do not disclose an IP stack or an augmented IP stack that processes packets, but merely discloses that RU 504 using a processor for achieving three goals: relaying IP packets, preventing from superfluous traffic, and ensuring the network security in paragraph 0049. The Examiner respectfully disagrees. The RU 504 of Chien et al has an IP stack or an augmented IP stack [see the stack IF Forwarding, Frame Filter, SN, LAPW, MAC, DMAC, PHY in fig. 5]. This stack in the RU 504 performs filtering or discarding packets and rewriting packets between wired interface and wireless interface. Thus, the arguments are not persuasive and the rejections are respectfully maintained.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 7, 9-11, 18, 21-23, 27-29, 31-35, and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Chien et al. [US 2003/0115345 A1].

As to claim 1, Chien et al teach a network adapter [e.g., gateway 110 in fig. 1, remote unit (RU) 224 or base 232 in fig. 2, RU 504 or BASE 506 in fig. 5] for one or more access points in a local area network, comprising:

means for connecting said one or more access points to a wired network [e.g., local network 108 or link to internet in fig. 1];

means for connecting said one or more access points to a wireless network [e.g., wireless communication link 116 in fig. 1];

means for enforcing a managed network environment, including filtering [frame dropping in paragraphs 0060, 0061] out packets to be discarded and rewriting [e.g., tunnel operation, reconstructing the UDP in paragraphs 0044, 0065, 0066] data packets transmitted between wired and wireless networks, wherein the rewriting the packets is based on policies that enable network address translation (NAT) [e.g., mapping addresses in paragraph 0036]; and

means for communicating with a network control server for providing configuration information [assigning the IP address and the local configuration parameters in paragraph 0051] to the network adapter.

5. As to claim 2, Chien et al teach said means for connecting to a wired network further comprising a wireline network interface [H-interface 510 in fig. 5].

6. As to claim 3, Chien et al teach said means for connecting to a wireless network further comprising a wireless network interface [A-interface 512 in fig. 5].

7. As to claim 4, Chien et al teach said wireless network interface is couple to a wireless access point [fig. 5].

8. As to claim 7, Chien et al teach said wireless network interface is couple to a Local Area Network (LAN) port [fig. 1].

9. As to claim 9, Chien et al teach the augmented IP stack includes a Mobile IP Foreign Agent [inherent to TCP/IP protocol suite in paragraph 0070].

10. As to claim 10, Chien et al teach said augmented IP stack detects and handles packets corresponding to a plurality of network services [e.g., paragraph 0069].

11. As to claim 11, Chien et al teach said means for communicating comprising network coordination software [e.g., paragraph 0032].

12. As to claim 18, Chien et al teach said network control server is not co-located with said network adapter [fig. 1].

13. As to claim 21, Chien et al teach said network adapter comprising at least one of a stand-alone personal computer (PC) and a special purpose computing machine [e.g., paragraph 0032].

14. As to claim 22, Chien et al teach said network adapter comprising software stored within said one or more access points [e.g., paragraph 0032].

15. As to claim 23, Chien et al teach said network control server is distributed over said wired network [fig. 2].

16. As to claim 27, Chien et al teach a method for providing a network adapter [e.g., gateway 110 in fig. 1, remote unit (RU) 224 or base 232 in fig. 2, RU 504 or BASE 506 in fig. 5] for one or more access points in a local area network, comprising the steps of:

connecting said one or more access points to a wired network [e.g., local network 108 or link to internet in fig. 1];

connecting said one or more access points to a wireless network [e.g., wireless communication link in fig. 1];

receiving [e.g., step 308 in fig. 3] packets from a wired network;

processing the received packet through an augmented IP stack [see the stack IF Forwarding, Frame Filter, SN, LAPW, MAC, DMAC, PHY in fig. 5] configured to filter [frame dropping in paragraphs 0060, 0061] out packets to be discarded and rewriting [e.g., tunnel operation, reconstructing the UDP in paragraphs 0044, 0065, 0066] data packets transmitted between wired and wireless networks, wherein the rewriting the packets is based on policies that enable network address translation (NAT) [e.g., mapping addresses in paragraph 0036];

forwarding [e.g., step 308 in fig. 3] the processed packets to the wireless network; and

communicating with a network control server for providing configuration information [assigning the IP address and the local configuration parameters in paragraph 0051] to the network adapter.

17. As to claim 28, Chien et al teach the augmented IP stack is configured to determine whether to rewrite the received packets [paragraphs 0032, 0033].

18. As to claim 29, Chien et al teach the step of determining whether to filter said packets [paragraphs 0032, 0033].

19. As to claim 31, Chien et al teach determining whether to filter said packets and determining whether to rewrite said packets [paragraphs 0032, 0033].

20. As to claim 32, Chien et al teach detecting packets corresponding to a plurality of network services via said augmented IP stack; and handling said packets [paragraphs 0067, 0068].

21. As to claim 33, Chien et al teach determining an access point currently associated with a mobile client [cellular telephones in paragraph 0041] by inspecting a media access control (MAC) address associated with packets transmitted by the mobile client [paragraph 0047].

22. As to claim 34, Chien et al teach a network adapter [e.g., gateway 110 in fig. 1, remote unit (RU) 224 or base 232 in fig. 2, RU 504 or BASE 506 in fig. 5], comprising:

a wireline network interface for connecting said one or more access points to a wired network [e.g., local network 108 or link to internet in fig. 1];

a wireless network interface for connecting said one or more access points to a wireless network [e.g., wireless communication link in fig. 1];

an augmented IP stack [see the stack IF Forwarding, Frame Filter, SN, LAPW, MAC, DMAC, PHY in fig. 5] for enforcing a managed network environment, including filtering [frame dropping in paragraphs 0060, 0061] out packets to be discarded configured to filter [frame dropping in paragraphs 0060, 0061] out packets to be discarded and rewriting [e.g., tunnel operation, reconstructing the UDP in paragraphs 0044, 0065, 0066] data packets transmitted between the wireline and wireless network

interfaces, wherein the rewriting the packets is based on policies that enable network address translation (NAT) [e.g., mapping addresses in paragraph 0036];

forwarding [e.g., step 308 in fig. 3] the processed packets to the wireless network; and

network coordination software for communicating with a network control server for providing configuration information [assigning the IP address and the local configuration parameters in paragraph 0051] to the network adapter.

23. As to claim 35, Chien et al teach packet filtering is carried out in accordance with at least one of security and quality-of-service policies of managed network environment [paragraph 0071].

24. As to claim 37, Chien et al teach the packet rewriting policies enable a roaming capability [inherent to cellular telephones in paragraph 0041].

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chien et al. [US 2003/0115345 A1] in view of Oz et al. [US patent No. 6,434,141 B1].

As to claim 14, Chien et al do not expressly disclose said network adapter is coupled to a switch and said switch is coupled to a plurality of short-range wireless network interfaces. Oz et al teach a network adapter coupled to a switch [fig. 6, ref. Nos.

274, 276]. At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to have an improved system for directing data received from media sources to network transmitters for transmitting over a broadband network as taught by Oz et al [see abstract].

As for claim 15, Oz et al. teaches forwarding packets to a segment containing network adapter [col. 10, lines 43-49].

As for claim 16, Oz et al. teaches forwarding packets originating from adapter and destined to an access point segment network segment containing the network the segment containing the network adapter [col. 10, lines 61-62; col. 15, lines 46-61].

As for claim 17, Oz et al. teaches forwarding all packets the network adapter [fig. 6; col. 15, lines 55-61].

27. Claims 5, 6, and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chien et al. [US 2003/0115345 A1] in view of well-known in the art.

As to claims 5 and 6, Chien et al do not expressly disclose the wireless access point comprising an 802.11 type access point or Bluetooth type access point; however, 802.11 type access point or Bluetooth type access point is well known in the art of wireless communication. At the time of the invention, one of ordinary skill in the art would have been motivated to include an 802.11 type access point or Bluetooth type access point in order to increase adaptability of Chien et al's network adapter.

As to claim 26, Chien et al do not disclose the network adapter is co-located with at least one of a Handoff Management Point, a Home Address Masquerader, and a Foreign Address Masquerader; however, a Handoff Management Point, a Home

Address Masquerader, and a Foreign Address Masquerader are well known in the art of wireless communication. At the time of the invention, one of ordinary skill in the art would have been motivated to include one of a Handoff Management Point, a Home Address Masquerader, and a Foreign Address Masquerader in order to increase adaptability of Maffeis' network adapter.

28. Claims 12, 13, 19, 20, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chien et al. [US 2003/0115345 A1] in view of Maffeis [US patent No. 6,721,779 B1].

As to claim 12, Chien et al do not explicitly disclose said network adapter including a plurality of wireline network interfaces. Maffeis teaches a network adapter including a plurality of wireline network interfaces [col. 1, lines 60-64]. At the time of the invention, one of ordinary skill in the art would have been motivated to include a network adapter including a plurality of wireline network interfaces in order to increase flexibility to adapt a plurality of ubiquitous different types of wired networks.

As to claim 13, Chien et al do not explicitly disclose said network adapter including a plurality of wireless network interfaces. Maffeis teaches a network adapter including a plurality of wireless network interfaces [col. 3, lines 5-10]. At the time of the invention, one of ordinary skill in the art would have been motivated to include a network adapter including a plurality of wireline network interfaces in order to increase flexibility to adapt a plurality of ubiquitous different types of wireless networks.

As to claim 19, Chien et al teach said network control server is co-located with a core server [service node 236 in fig. 2]. However, Chien et al do not teach the core

server providing services as mobile devices wirelessly coupled to the local area network environment physically move through the environment. Maffeis teaches a network control server is co-located with a core server that provides services as mobile devices wirelessly coupled to the local area network environment physically move through the environment [fig. 1; col. 3, lines 37-41]. At the time of the invention, one of ordinary skill in the art would have been motivated to include a server providing services as mobile devices wirelessly coupled to the local area network environment physically move through the environment in order to increase portability for internet servicing.

As to claim 20, Chien et al teach said network control server is co-located with a core server [fig. 5]. However, Chien et al do not teach the routing coordinator enabling client data connections to be preserved as mobile devices wirelessly coupled to the local area network environment physically move through the environment Maffeis teaches a network control server is co-located with a routing coordinator that enables client data connections to be preserved as mobile devices wirelessly coupled to the local area network environment physically move through the environment [fig. 1; col. 3, lines 1-4]. At the time of the invention, one of ordinary skill in the art would have been motivated to include a server providing services as mobile devices wirelessly coupled to the local area network environment physically move through the environment in order to increase portability for internet servicing.

As to claim 24, Chien et al do not explicitly disclose said network adapter connectable to one or more access points located on a plurality of LAN segments. Maffeis teaches a network adapter is connectable to one or more access points located

on a plurality of LAN segments [fig. 1; col. 2, lines 60-67]. At the time of the invention, one of ordinary skill in the art would have been motivated to include a network adapter including a plurality of wireline network interfaces in order to increase flexibility to adapt a plurality of ubiquitous different types of wired networks.

As to claim 25, Chien et al do not explicitly disclose said network adapter connectable to different wireless LANs. Maffeis teaches a network adapter is connectable to different wireless LANs [col. 3, lines 5-12]. At the time of the invention, one of ordinary skill in the art would have been motivated to include a network adapter including a plurality of wireline network interfaces in order to increase flexibility to adapt a plurality of ubiquitous different types of wireless networks.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ilwoo Park whose telephone number is (571) 272-4155. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ILWOO PARK
PRIMARY EXAMINER

Ilwoo Park
May 8, 2007